

五、論文著述：

(A) Journal Papers 期刊論文 (2004-2010)

1. Z. Jiang, D.S. Seo, S.-D. Yang, D.E. Leaird, A.M. Weiner, R.V. Roussev, C. Langrock, M.M. Fejer, "Low power, high-contrast, coded waveform discrimination at 10GHz via nonlinear processing," *IEEE Photon. Technol. Lett.* **16**(7), pp. 1778-1780, (2004). (SCI)
2. Z. Jiang, D.S. Seo, S.-D. Yang, D.E. Leaird, A.M. Weiner, R.V. Roussev, C. Langrock, M.M. Fejer, "Spectrally coded O-CDMA system with four users at 2.5 Gb/s using low power nonlinear processing," *Electron. Lett.* **40**(10), pp. 623-625, (2004). (SCI)
3. Shang-Da Yang, Andrew M. Weiner, Krishnan R. Parameswaran, and Martin M. Fejer, "400-photon-per-pulse ultrashort pulse autocorrelation measurement with aperiodically poled lithium niobate waveguides at 1.55 μm ," *Opt. Lett.* **29**(17), pp. 2070-2072, (2004). (SCI)
4. Z. Jiang, D.S. Seo, S.-D. Yang, D.E. Leaird, A.M. Weiner, R.V. Roussev, C. Langrock, and M.M. Fejer, "Four-user, 2.5-Gb/s, spectrally coded OCDMA system demonstration using low power nonlinear processing," *J. Lightw. Technol.* **23**(1), pp. 143-158, (2005). (SCI)
5. Z. Jiang, D. S. Seo, S.-D. Yang, D. E. Leaird, A. M. Weiner, R. V. Roussev, C. Langrock, and M. M. Fejer, "Four-user 10-Gb/s spectrally phase-coded O-CDMA system operating at ~ 30 fJ/bit," *IEEE Photon. Technol. Lett.* **17**(3), pp. 705-707, (2005). (SCI)
6. Z. Jiang, S.-D. Yang, D. E. Leaird, A. M. Weiner, "Full dispersion compensation for ~ 500 fs pulse transmission over 50 km single mode fiber," *Opt. Lett.* **30**(12), pp. 1449-1451, (2005). (SCI)
7. S.-D. Yang, Z. Jiang, A.M. Weiner, K.R. Parameswaran, M.M. Fejer, "Ultrasensitive chromatic dispersion monitoring for 10-GHz pulse train by quasi-phase matched LiNbO₃ waveguides," *Electron. Lett.*, **41**(9), pp. 554-556, (2005). (SCI)
8. Shang-Da Yang, Andrew M. Weiner, Krishnan R. Parameswaran, and Martin M. Fejer, "Ultra-sensitive second-harmonic generation frequency-resolved optical gating by aperiodically poled LiNbO₃ waveguides at 1.5 μm ," *Opt. Lett.* **30**(16), pp. 2164-2166, (2005). (Selected by *Virtual Journal of Ultrafast Science*, issue of August 2005) (SCI)
9. Shang-Da Yang*, Houxun Miao, Zhi Jiang, Andrew M. Weiner, Krishnan R. Parameswaran, and Martin M. Fejer, "Ultrasensitive nonlinear measurements of femtosecond pulses in the telecommunications band by aperiodically poled LiNbO₃ waveguides," *Applied Optics*, **46**(27), pp. 6759-6769, 2007. (SCI) (NSC 95-2112-M-007-018)
10. Houxun Miao*, Shang-Da Yang, Carsten Langrock, Rostislav V. Roussev, M. M. Fejer, and Andrew M. Weiner, "Ultralow-power second-harmonic generation frequency-resolved optical gating using aperiodically poled lithium niobate waveguides," *Journal of Optical Society of America B*, **25**(6), pp. A41-A53, 2008. (Invited). (SCI) (NSC 95-2112-M-007-018)

11. Shang-Da Yang*, Chen-Shao Hsu, Shih-Lun Lin, Houxun Miao, Chen-Bin Huang, and Andrew M. Weiner, "Direct spectral phase retrieval of ultrashort pulses by double modified one-dimensional autocorrelation traces," Optics Express, **16**(25), pp. 20617-20625, 2008. (SCI) (NSC 96-2112-M-007-016)
12. Shang-Da Yang*, Chen-Shao Hsu, Shih-Lun Lin, You-Sheng Lin, Carsten Langrock, and M. M. Fejer, "Ultrasensitive direct-field retrieval of femtosecond pulses by modified interferometric field autocorrelation," Optics Letters, **34**(20), pp. 3065-3067, 2009. (Selected by Virtual Journal of Ultrafast Science, issue of December 2009). (SCI) (NSC 97-2221-E-007-028-MY3)
13. Jui-Yu Lai, Yi-Jhen Liu, Hung-Yu Wu, Yen-Hung Chen, and Shang-Da Yang*, "Engineered multiwavelength conversion using nonperiodic optical superlattice optimized by genetic algorithm," Optics Express, **18**(5), pp. 5328-5337, 2010. (SCI) (NSC 97-2221-E-007-028) (NSC 97-2221-E-008-030)
14. Li-Fan Yang, Shih-Lun Lin, and Shang-Da Yang*, "Ultrashort pulse measurements by interferometric spectrogram," Optics Express, **18**(7), pp. 6877-6884, 2010. (SCI) (NSC 97-2221-E-007-028-MY3)

(B) Conference Papers 研討會論文

International Conferences , 國際研討會 (2006-2010)

1. Houxun Miao, Andrew M. Weiner, Shang-Da Yang, Carsten Langrock, Rostislav V. Roussev, Martin M. Fejer, "Ultrasensitive second-harmonic generation frequency-resolved optical gating using a fiber-pigtailed aperiodically poled lithium niobate waveguide at 1.55 mm," The 15th International Conference on Ultrafast Phenomena, Pacific Grove, California, USA, July 31-August 4, 2006.
2. S.-D. Yang, H. Miao, A.M. Weiner, K.R. Parameswaran, and M.M. Fejer, "Ultrasensitive nonlinear measurements of femtosecond optical pulses at 1.5mm by aperiodically poled lithium niobate waveguides," The 19th Annual Meeting of IEEE Lasers & Electro-Optics Society, Montreal, Quebec, Canada, October 29-November 2, 2006, ThC4, pp. 737-738. (invited). (NSC 95-2112-M-007-017).
3. Chen-Shao Hsu, Shang-Da Yang, "Robustness enhancement of iteration-free spectral phase retrieval by interferometric second-harmonic trace," Conference on Lasers & Electro Optics, Baltimore, Maryland, USA, May 6-11, 2007, JThD20. (NSC 95-2112-M-007-018).
4. Shang-Da Yang, Yong-Yuan Huang, "Femtosecond optical pulse measurements by thick quasi-phase matched crystals," The 2nd cross-straight symposium on optical microstructure and laser technologies, Nanjing, PRC, September 14-16, 2007. (NSC 95-2112-M-007-018).

5. Shang-Da Yang, Yong-Yuan Huang, "Even-order spectral phase retrieval by modified interferometric field autocorrelation trace," The 20th Annual Meeting of IEEE Lasers & Electro-Optics Society, Lake Buena Vista, Florida, USA, October 21-25, 2007, ThT3, pp. 844-845. (NSC 95-2112-M-007-018).
6. Shang-Da Yang, Shih-Lun Lin, Yong-Yuan Huang, "Complete spectral phase retrieval by modified interferometric field autocorrelation traces," Conference on Lasers & Electro Optics, San Jose, California, USA, May 4-9, 2008, JWA58. (NSC 95-2112-M-007-018)
7. Chi-Houn Lin, Shang-Da Yang, Wei-Chao Chiu, Ming-Chang M. Lee, "Ultrashort pulse propagation and compression in dispersion increasing silicon nanowire waveguides," 6th International Conference on Optics-photonics Design and Fabrication, Taipei, Taiwan, June 9-11, 2008. (NSC 96-2112-M-007-016)
8. Shang-Da Yang, Chen-Shao Hsu, Shih-Lun Lin, A. M. Weiner, M. M. Fejer, "Ultrasensitive femtosecond pulse measurement by using engineered quasi-phase matched nonlinear optics," Joint Symposium on Nonlinear Optics and Photonics, Moscow, Russia, June 18-20, 2008. (NSC 96-2112-M-007-016)
9. Chen-Shao Hsu, Shih-Lun Lin, Shang-Da Yang, Chen-Bin Huang, Houxun Miao, Andrew M. Weiner, "Direct spectral phase retrieval of ultrashort pulses by double one-dimensional autocorrelation traces," The 21th Annual Meeting of IEEE Lasers & Electro-Optics Society, Newport Beach, California, USA, November 9-13, 2008, ThB4, pp. 703-704. (NSC 96-2112-M-007-016)
10. Chen-Shao Hsu, Shih-Lun Lin, You-Sheng Lin, Chen-Bin Huang, Shang-Da Yang, Carsten Langrock, M. M. Fejer, "Self-referenced spectral phase retrieval of 28-attojoule ultrashort pulses by modified interferometric field autocorrelation measurement," The 22th Annual Meeting of IEEE Photonics Society, Belek-Antalya, Turkey, October 4-8, 2009, TuO4, (invited). (NSC 97-2221-E-007-028-MY3)
11. Jui-Yu Lai, Yi-Jhen Liu, Yen-Hung Chen, Shang-Da Yang, "Engineered multiwavelength conversion using nonperiodic optical supperlattice optimized by genetic algorithm," The 22th Annual Meeting of IEEE Photonics Society, Belek-Antalya, Turkey, October 4-8, 2009, TuFF4. (NSC 97-2221-E-007-028) (NSC 97-2221-E-008-030)
12. Li-Fan Yang, Shih-Lun Lin, Shang-Da Yang, "Ultrashort optical pulse measurements by interferometric spectrogram," The 6th Asian Conference on Ultrafast Phenomena, Taipei, Taiwan, January 10-13, 2010. (NSC 98-2221-E-007-031) (Winner of the Coherent-Superbin Best Paper Award).
13. Hsiang-Nan Cheng, Chi-Cheng Chen, Shang-Da Yang, Carsten Langrock, M. M. Fejer, "Ultrafast temporal phase detection using thick nonlinear crystals," Conference on Lasers & Electro Optics, San Jose, California, USA, May 16-21, 2010, CMK7. (NSC 98-2221-E-007-031)

14. Jui-Yu Lai, Yi-Jhen Liu, Hung-Yu Wu, Yen-Hung Chen, Shang-Da Yang, "Nonperiodic optical superlattice optimized by genetic algorithm for engineered multiwavelength conversion," Conference on Lasers & Electro Optics, San Jose, California, USA, May 16-21, 2010, CMMM7. (NSC 98-2221-E-007-031)
15. Chen-Shao Hsu, Hsin-Chien Chiang, Hsiu-Po Chuang, Chen-Bin Huang, Shang-Da Yang, "Ultrasensitive femtosecond pulse measurement by shaper-assisted modified interferometric field autocorrelation," The 23rd Annual Meeting of IEEE Photonics Society, Denver, Colorado, USA, November 7-11, 2010, ThG4. (NSC 97-2221-E-007-028-MY3) (NSC 97-2112-M-007-025-MY3)

Domestic Conferences , 國內研討會 (2006-2010)

16. Chen-Shao Hsu, Shang-Da Yang, "Comparison of robustness of complete ultrashort optical pulse measurement techniques," Optics and Photonics Taiwan 2006, Hsinchu, Taiwan, December 15-16, 2006, CO-11. (NSC 95-2112-M-007-017).
17. Sam-Ru Ho, Shang-Da Yang, "Ultrashort signal generation by optical parametric amplification with pulsed pump and continuous-wave seeding," Optics and Photonics Taiwan 2007, Taichung, Taiwan, November 30-December 1, 2007, CP-008. (NSC 96-2112-M-007-016).
18. Yu-Tian Huang, Tsong-Dong Wang, Shang-Da Yang, "Generation of terahertz radiation by cascaded SHG-DFG in single QPM crystal," Optics and Photonics Taiwan 2007, Taichung, Taiwan, November 30-December 1, 2007, CP-032. (NSC 96-2112-M-007-016).
19. Shang-Da Yang, Sheng-Ru Ho, Shih-Lun Lin, Chen-Shao Hsu, "Femtosecond optical parametric generator at 80 MHz directly pumped by mode-locked fiber oscillator and injected with CW seeding," Optics and Photonics Taiwan 2008, Taipei, Taiwan, December 4-6, 2008. (NSC 97-2221-E-007-028-MY3)
20. Chen-Shao Hsu, Shih-Lun Lin, You-Sheng Lin, Chen-Bin Huang, Shang-Da Yang, Carsten Langrock, M. M. Fejer, "Self-referenced spectral phase retrieval of 28-attojoule ultrashort pulses by modified interferometric field autocorrelation measurement," Optics and Photonics Taiwan 2009, Taipei, Taiwan, December 10-11, 2009. (NSC 98-2221-E-007-031)
21. Chen-Shao Hsu, Yu-Hsien Lee, Atsushi Yabushita, Takayoshi Kobayashi, Shang-Da Yang, "Self-referenced direct spectral phase retrieval of few-cycle ultrashort pulses by modified interferometric field autocorrelation," International Conference on Optics and Photonics in Taiwan 2010, Tainan, Taiwan, December 3-4, 2010. NSC (97-2221-E-007-028-MY3)
22. Jui-Yu Lai, Shang-Da Yang, "Hyperfine aperiodic optical superlattice optimized by sequential search for engineered multiwavelength conversion," International

